

IN THE CLAIMS:

1. (currently amended) A method for operating a system that includes a plurality of valves, dampers, motors, and pumps, the system is operable in a plurality of operating modes that each include interlocks between the modes, said method comprising:

operating the system in a first operating mode, the first operating mode comprising a predetermined configuration of valves, dampers, motors, and pumps;

selecting a second operating mode to switch the system operation to;

receiving a signal indicative of the system meeting permissive requirements for entering the selected mode;

initiating a predetermined time delay greater than zero time;

~~resetting each of the plurality of operating modes~~ the selected operating mode during the time delay; and

switching the system to a second operating mode without going to a standby mode, the second operating mode comprising a predetermined configuration of valves, dampers, motors, and pumps different than the first mode, and wherein at least one of the valves, dampers, motors, or pumps is positioned to a different operating position in the second operating mode than that respective valve, damper, motor, or pump was positioned for operation during the first operating mode.

2. (canceled)

3. (original) A method in accordance with Claim 1 wherein switching the system to a second mode comprises switching the system to a second mode without going to a standby mode, at least one of the first mode and the second mode comprises at least one of a residual heat removal mode, a reactor core isolation cooling mode, and a high pressure core flood mode.

4. (canceled)

5. (original) A method in accordance with Claim 1 further comprising verifying a plurality of second mode permissives prior to switching the system to the second mode.

6. (original) A method in accordance with Claim 1 wherein switching the system to a second mode without going to a standby mode comprises switching the system to a second mode using a fail safe initiation logic program.

7. (canceled)

8. (canceled)

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25. (canceled)

26. (currently amended) A method for operating a nuclear power plant system that is operable in a plurality of operating modes that each include interlocks between the modes, said method comprising:

operating the system in a first operating mode, the first operating mode comprising a predetermined configuration of valves, dampers, motors, and pumps;

selecting a second operating mode to switch the system operation to;

receiving a signal indicative of the system meeting permissive requirements for entering the selected mode;

initiating a predetermined time delay greater than zero time;

~~resetting each of the plurality of operating modes~~ the selected operating mode during the time delay; and

switching the system to a second operating mode without going to a standby mode, the second operating mode comprising a predetermined configuration of valves, dampers, motors, and pumps different than the first operating mode, and wherein at least one of the valves, dampers, motors, or pumps is positioned to a different operating position in the second operating mode than that respective valve, damper, motor, or pump was positioned for operation during the first operating mode.

27. (previously presented) A method in accordance with Claim 26 wherein switching the system to a second mode comprises switching the system to a second mode without going to a standby mode, at least one of the first mode and the second mode comprises at least one of a residual heat removal mode, a reactor core isolation cooling mode, and a high pressure core flood mode.

28. (previously presented) A method in accordance with Claim 26 further comprising manually changing at least one valve, damper, motor, or pump while operating in the first mode.

29. (previously presented) A method in accordance with Claim 26 further comprising verifying a plurality of second mode permissives prior to switching the system to the second mode.

30. (previously presented) A method in accordance with Claim 26 wherein switching the system to a second mode without going to a standby mode comprises switching the system to a second mode using a fail safe initiation logic program.